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Article in *Alternative and Complementary Therapies* · June 2005

DOI: 10.1089/act.2005.11.131

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Herbs for Treating Herpes Zoster Infections

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Varicella zoster virus (VZV) causes chicken pox and shingles. Like its close cousin herpes simplex, VZV can go dormant in nerve ganglia and reemerge later. With VZV vaccine routinely being administered to children, it is expected that cases of VZV-induced disease will decline. Nevertheless, there is still a large pool of infected people who are susceptible to developing shingles and its dreaded complication, postherpetic neuralgia (PHN). Although rarely life threatening, VZV reactivation syndromes such as shingles, Ramsay-Hunt syndrome, ophthalmic herpes zoster, and PHN can cause pain, paralysis, chronic or even permanent neuropathies, depression, and other morbid states.

Conventional treatments for these two conditions are not satisfactory and thus there is room for natural treatments and prevention. This article focuses on botanical therapies for shingles and PHN. Diet, lifestyle, nutritional supplements, and other modalities are often combined with herbs for best outcomes but are not discussed here.

Preventing Shingles and PHN

The emergence of dormant VZV is correlated with depressed cellular immune function, such as is seen with aging and in patients who have undergone organ transplant or who have cancer or AIDS.¹ Stress from various causes, including divorce, surgery, and space flight is also associated with VZV activation.^{2,3} Therefore, it is logical that herbs that support cellular immune function and counteract stress would help prevent shingles and PHN.

The major category of herbs that fit this description are known as adaptogens or immunomodulators. We have previously discussed these herbs at length, so only a brief review is included here.⁴ By multiple mechanisms, adaptogens support normal immune function and diminish the negative effects of stress. Some commonly used adaptogens are Asian ginseng (*Panax ginseng*) root, American ginseng (*Panax quinquefolius*), eleuthero (*Eleutherococcus senticosus*) root, schisandra (*Schisandra chinensis*) fruit, ashwagandha (*Withania somniferum*) root, astragalus (*Astragalus membranaceus*) root, and various medicinal mushrooms

such as shiitake (*Lentinula edodes*). All of these botanicals appear to be safe for long-term use based on historical records and the fact that many are eaten (such as Asian ginseng and shiitake mushrooms). However, patients who are on immunosuppressive drugs should be cautioned to avoid these herbs because of the *theoretical* risk of their causing organ rejection or autoimmune disease reactivation.

We have located no research specifically documenting the efficacy of these herbs for addressing VZV. However, we have already discussed the research on using immunomodulating herbs for herpes simplex reemergence, which may have some implications for the closely related situation of VZV reactivation.⁵

Anti-VZV Herbs

Several herbs suppress VZV virus once it reactivates and may also prevent its reactivation. We found two clinical trials about a topical 5-percent cream of the leaf of the Thai herb *bi phaya yaw* (*Clinacanthus nutans*) used to treat shingles. Details on both trials are lacking but they appear to have been double-blinded, placebo-controlled, randomized trials, one of which involved 51 patients.^{6,7} In both studies, healing speed and symptom reduction were significantly better in the *Clinacanthus*-treated groups compared to the placebo groups. Monoglycosylated diglycerides from this herb have shown anti-HSV-1 activity in vitro.⁸ An extract of *Clinacanthus* was also found to have immunomodulatory properties in vitro.⁹

Licorice (*Glycyrrhiza glabra*) root and its relative Chinese licorice (*Glycyrrhiza uralensis*) root both contain the triterpenoid saponin glycyrrhizin. One study showed that glycyrrhizin has excellent anti-VZV activity in human fibroblasts and an additive to mildly synergistic effect on several antiherpetic drugs, including acyclovir.¹⁰ Evidence from this and other studies on the antiviral effect of glycyrrhizin suggests that it prevents penetration of viral particles into cells.¹¹ Polysaccharides in Chinese licorice have also been shown to prevent cellular penetration of various viruses including VZV.¹² We have found no clinical trials on the efficacy of oral licorice or Chinese licorice for treating shingles. One Russian study apparently produced some benefit from topical applications of licorice liniments but no details are available in English.¹³

Extracts of the juice of elder (*Sambucus* spp.) fruit and black currant (*Ribes nigrum*) fruit both showed anti-VZV activity in vitro.¹⁴ Black currant was somewhat more active than elder. Both



Above: Passionflower (*Passiflora incarnata*); left: Skullcap (*Scutellaria lateriflora*). Drawing ©2005 by Kathy Abascal, B.S., J.D., R.H. (A.H.G.).

Herbs for Shingles and Postherpetic Neuralgia

Adaptogens and immunomodulators

- Astragalus (*Astragalus membranaceus*) root
- Eleuthero (*Eleutherococcus senticosus*) root
- Licorice (*Glycyrrhiza glabra*) root
- Chinese licorice (*Glycyrrhiza uralensis*) root
- Asian ginseng (*Panax ginseng*) root
- American ginseng (*Panax quinquefolius*) root
- Schisandra (*Schisandra chinensis*) fruit
- Ashwagandha (*Withania somniferum*) root

Antivirals

- Bi phaya yaw (*Clinacanthus nutans*) leaf
- Licorice (*Glycyrrhiza glabra*) root
- Chinese licorice (*Glycyrrhiza uralensis*) root
- St. John's wort (*Hypericum perforatum*) flowering tops
- Chaparral (*Larrea tridentata*) flowering tops
- Lemonbalm (*Melissa officinalis*) leaf

Inflammation modulators

- Yarrow (*Achillea millefolium*) flower
- Calendula (*Calendula officinalis*) flower
- Turmeric (*Curcuma longa*) rhizome
- Licorice (*Glycyrrhiza glabra*) root
- Chinese licorice (*Glycyrrhiza uralensis*) root
- Chamomile (*Matricaria recutita*) flower
- Aspen (*Populus tremuloides*) bark
- Feverfew (*Tanacetum parthenium*) leaf

Antineuralgics and analgesics

- Belladonna (*Atropa belladonna*) leaf (use with caution)
- Oat (*Avena sativa*) milky seed
- Cayenne (*Capsicum* spp) fruit or capsaicin
- Resin spurge (*Euphorbia resinifera*) latex (use with caution)
- Rose-scented geranium (*Pelargonium* spp.) volatile oil
- Passionflower (*Passiflora incarnata*) leaf
- Kava (*Piper methysticum*) root
- Skullcap (*Scutellaria lateriflora*) leaf
- Pacific valerian (*Valeriana sitchensis*) root

appeared to inhibit viral entry into cells but also may have restricted viral protein synthesis. Black currant showed an additive effect with acyclovir against herpes simplex. The study authors questioned whether the phenolic compounds they found in the extracts would be absorbed from the gut and noted that the extracts caused death among healthy cells in their assays. However, both elder and black currant fruits are considered to be safe because they are frequently eaten. They should be studied in humans to determine if they are effective as anti-VZV treatments.

Other anti-VZV herbs are suggested by historical treatments and extrapolation from anti-herpes simplex protocols. Three herbs we consider to be useful are St. John's wort (*Hypericum perforatum*) flowering tops; chaparral (*Larrea tridentata*) leaf, flower, and seed; and lemonbalm (*Melissa officinalis*) leaf. Besides being antiviral, St. John's wort is traditionally considered to be antineuropathic, although one clinical trial involving patients with polyneuropathies (not PHN) found no benefit for standardized extracts compared to placebo.¹⁵ Tinctures should be taken internally and applied directly to lesions to relieve symptoms and maximize antiviral activity. Inflammation modulating herbs such as turmeric (*Curcuma longa*) rhizome, calendula (*Calendula officinalis*) flower, and licorice should be combined topically and internally to help relieve symptoms.

Topical Capsaicin

Once shingles lesions resolve, PHN may continue to trouble a patient. The best and most widely studied herbal remedy for this problem is topical application of the hot principle of cayenne (*Capsicum* spp.) fruit. This treatment appears to work by overacti-

vating the peripheral C fibers so much that the neurotransmitter substance P is depleted, thus interrupting transmission of pain.

Several open clinical trials initially reported on the success of this approach.^{16–18} A large, double-blinded trial involving 143 patients with PHN lasting from 6 months to more than 12 months found that topical application of 0.075 percent capsaicin significantly reduced pain severity compared to total lack of activity of placebo.¹⁹

It is, however, difficult to truly blind studies on capsaicin as the active medication causes burning and itching the first few times it is applied. Although this effect fades with repeated applications, this means people in a treatment group can easily determine if they have been given a placebo or not. Patients must be cautioned to wear gloves while applying capsaicin or to wash their hands thoroughly afterward with hot water and soap. Otherwise, capsaicin can be transferred to sensitive body parts and cause burning and itching on them. Capsaicin has no other known adverse effects, except in the occasional patient who is allergic to it.

Another herbal substance that is potentially useful for treating PHN is resin spurge (*Euphorbia resinifera*) latex, from a native Moroccan plant. Its constituent, resiniferatoxin, activates the vanilloid receptor, which is also the site of capsaicin's action. Clinical trials are apparently in progress to evaluate resiniferatoxin as a treatment for patients with PHN although results are not yet available.²⁰

Topical volatile oil and 50-percent or 10-percent dilutions (in mineral oil) of rose-scented geranium (*Pelargonium* spp.) showed significant pain-relieving ability compared to placebo in one small, double-blinded clinical trial.²¹ Rose-scented geranium treatments were as effective as 0.025 percent capsaicin ointment applied topically. Minor irritation occurred in a few people. This therapy should be investigated more thoroughly.

Traditional but untested therapies for PHN include oat (*Avena sativa*) milky seed, passionflower (*Passiflora incarnata*) leaf, skullcap (*Scutellaria lateriflora*) leaf, Pacific valerian (*Valeriana sitchensis*) root, kava (*Piper methysticum*) root, and belladonna (*Atropa belladonna*) leaf (a low-dose herb for use only by highly skilled practitioners). These are primarily used internally although some may be useful topically (e.g., belladonna).

Clinical Formulating

A combination of internal immune support, internal antivirals, and internal inflammation modulators, and topical antivirals and topical inflammation modulators is usually used to treat shingles. The specific details of each patient's case will determine which herbs and other treatments are most useful. For someone with nonintentional immune suppression, immune herbs might be emphasized. For immunocompetent patients, antiviral herbs are likely to be more relevant. If PHN develops after shingles resolves, then the various antineuropathic herbs can be used.

One case series has reported on the efficacy of an integrative approach for PHN. Although this approach used modalities based on Traditional Chinese Medicine, the series supports our

contention that combinations of natural therapies are effective. Pain relief was on average 72 percent in patients treated with acupuncture, local nerve blocking, cupping, meditation, and traditional Chinese herbal formulas.²²

Conclusions

VZV and its sequelae can be addressed via an integrative approach that includes botanicals for immune support, relief of symptoms, and healing. More research is needed on some botanicals and it is important to follow patients carefully when they use certain preparations as these may cause discomfort or allergic reactions. Practitioners should combine herbal treatments with supplements and other healing modalities in order to advance healing in patients with the painful, potentially debilitating conditions that result from VZV. □

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